DRAFT

TUCSON AMA SAFE-YIELD TASK FORCE
ISSUE OUTLINE
2/18/00

ISSUE: AGRICULTURAL GROUNDWATER RIGHTS

There are concerns about the impact that grandfathered right holders will have on achievement of the safe-yield goal. Although agricultural interests are expected to withdraw smaller amounts of groundwater over time, they have a right to continue to mine groundwater in perpetuity.

BACKGROUND

Agricultural grandfathered rights to groundwater currently account for 38% of the AMA's groundwater pumping that is not subject to a replenishment obligation (residual groundwater pumping), or approximately 132,500 acre-feet. Due to an anticipated reduction in non-Indian irrigable acreage, agriculture is expected to be responsible for 28% of the 2025 residual groundwater pumping, or 54,000 acre-feet.

Agricultural groundwater rights are quantified by the conservation requirements in the management plans. Water duties are set based on historic cropping patterns and a maximum efficiency of 85%, but an uncapped "flexibility account" allows for substantial credits to accrue that can be used at any time in the future. Credits accrued in the previous year can also be sold to other farmers in the same irrigation district (those outside of a district can also sell credits to each other). The formula used to establish the water duty for each farm is based on the highest number of acres planted between 1975 and 1980. This formula tends to over-allocate water to most farms. In addition, land that lies fallow (regardless of the reason) continues to accrue credits. The current flexibility account balance for the Tucson AMA is over 800,000 acre-feet.

Since agricultural flex credits can only be used for agricultural purposes, and most farms have more than they can use, most credits are expected to disappear when the farm transitions to urban development. However, concerns remain about the impact of irrigation grandfathered rights and flexibility account credits on the achievement of safe-yield.

SOLUTIONS CONSIDERED

The following ideas have been considered. Additional ideas may be added to this list.

- Agricultural flex credits could be capped so that they provide flexibility to respond to changing conditions without providing an alternative to conservation efforts.
- Land that was fallow for a specified number of years could be prevented from accruing flex credits. An impact analysis of this proposal would be needed to avoid sending a "use it or lose it" message.
- The ability to transfer flex credits between farmers should not be expanded.
- Flex credits should not be transferable to other sectors under any circumstances.

- The statutory formula for establishing water allocations for farmers (water duties) could be re-evaluated to encourage on-farm efficiency.
- The use of credits could be subject to approval by a board that would evaluate applications by farmers. The review board could make the decisions on whether credits above a certain amount could be used, subject to efficiency demonstrations and conservation efforts by the farmer.
- If agricultural groundwater use does not follow expected declining groundwater usage trends, trigger a replenishment requirement or diminish volume of rights.

PRELIMINARY RECOMMENDATIONS

An evaluation of capping flex credits to a certain maximum volume that takes into account cropping patterns, weather variability and other factors should be conducted. Also, the possibility of limiting accrual of credits for agricultural lands that are permanently out of production should be considered. The inability to transfer flex credits to other sectors under any circumstances should be continued. In addition, any further recommendations should consider the current activities of the Department and the agricultural community in development of Third Management Plan agricultural conservation programs.

OBSERVATIONS

It should be noted that agricultural interests made a substantial contribution to the achievement of safe-yield in agreeing that there could never be any new irrigated land in AMAs. This limitation on expansion stands in contrast to the water rights for municipal entities and copper mines. Municipal entities can expand their overall water use so long as they limit their per capita use and use renewable supplies; mine expansion is allowed on the basis of mineral extraction permits.

Regulating accrual of flexibility account credits gives farmers the incentive to use more water to reduce the credit accounts. It is important to avoid unintended consequences in designing alternative regulatory approaches.

There is value in continuing to have agricultural activity in the region other than contributions to the economy and production of goods for consumers. Agricultural land can be fallowed in response to drought conditions, allowing for flexibility to use their water supplies for municipal purposes during shortages. In addition, agricultural land has value as open space.